UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING.DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/700,287	11/13/2000	Klaus Gradischnig	SIEM0017U/US	3477

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EXAMINER
BRUCKART, BENJAMIN R

ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 12/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/700,287	GRADISCHNIG, KLAUS
	Examiner	Art Unit
	Benjamin R Bruckart	2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _13 November 2000_.

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _10-18_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _10-18_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All b) ☐ Some * c) ☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _5_.

4) ☐ Interview Summary (PTO-413) Paper No(s). _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

Detailed Action

Claims 10-18 are pending in this Office Action.

Information Disclosure Statement

The information disclosure statement filed on paper 5 has been considered.

Change of Address

The change of address received on 1/08/01 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis

for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10, 11, and 16 are rejected under 35 U.S.C. 102(b) as being unpatentable over

U.S. Patent No. 5,583,848 by Glitho (Applicant IDS).

Claims 17 and 18 are rejected under 35 U.S.C. 102(b) as being unpatentable over U.S.

Patent No. 5,583,848 by Glitho (Applicant IDS).

Regarding claim 10, a method for signaling in a signaling transfer point (Glitho: col. 1, lines 24-

29, lines 10-12), comprising the steps of:

routing signaling messages from source signaling points in a direction toward destination

signaling points (Glitho: col. 3, lines 3-5);

checking at least one of a presence of a loop (Glitho: col. 6, lines 29-47) and a possibility of the presence of the loop (Glitho: col. 6, lines 44-47) over a departing link set to a destination signaling point by at least one of a routing test (Glitho: col. 3, lines 17-21) and a real time method (Glitho: col. 3, lines 17-21); and

automatically withholding a transfer of said signaling messages via a pertinent linkset to said destination signaling points upon a positive check result outcome of said checking step (Glitho: col. 6, lines 3-6, lines 19-47).

Regarding claim 11, a method according to claim 10, further comprising the steps of:

sending test messages via a link set to destinations that said linkset can reach upon said positive check result outcome (Glitho: col. 3, lines 3-5); and

automatically withholding transfer of said signaling messages to a destination that had returning test messages upon return of said test messages (Glitho: col. 6, lines 3-6, lines 19-47).

Regarding claim 16, a method according to claim 10, further comprising the step of:

checking a new current route for absence of loops in the signaling transfer point, immediately after blocking; a linkset in said loop (Glitho: col. 5, lines 37-55; the routing information gathered from primary then secondary links).

Regarding claim 17, a signaling system of a signaling transfer point (Glitho: col. 1, lines 24-29, lines 10-12), comprising:

a checker for detection (Giltho: col. 6, lines 19-27) of at least a loop (Glitho: col. 6, lines 29-27) or a possibility of a presence of said loop (Glitho: col. 6, lines 44-47) over a departing linkset to a destination signaling point (Glitho: col. 6, lines 44-47), said checker utilizes at least one of a routing test (Glitho: col. 3, lines 17-21) and a real time method (Glitho: col. 3, lines 17-21), wherein when a positive check result outcome is obtained transfer of signaling messages via pertinent linksets are automatically withheld (Glitho: col. 6, lines 3-6).

Regarding claim 18, a signaling system according to claim 17, further comprising:

a verifier for detection of said possibility of the presence of said loop (Glitho: col. 3, lines

17-21; col. 6, lines 44-47), said verifier sends test messages to destinations reachable via said

departing linkset before said signaling (Glitho: col. 3, lines 17-21) system withholds said

transfer of signaling messages to a destination for which said test messages return (Glitho: col. 6,

lines 3-6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 5,583,848 by Glitho (Applicant IDS) in view of U.S. Patent No. 6,044,402 by

Jacobson et al.

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Patent No. 5,583,848 by Glitho (Applicant IDS) in view of U.S. Patent No. 5,014,262 by

Harshavardhana.

Regarding claim 12,

The Giltho reference teaches a system of testing routing paths before sending data.

The Glitho reference does not explicitly state the blocking of packets based on

destination and port.

The Jacobson reference teaches a method according to claim 10, further comprising the

step of withholding transfer of said signaling messages to downstream pertinent destinations by

blocking a specific departing link set of said pertinent destination in a routing table of said

signaling transfer point (Jacobson: col. 13, lines 20-25; lines 56-59).

The Jacobson reference further teaches the network connection blocker combines routing packets with a blocking module to decrease the number of devices in a network, which can act as bottlenecks and can be vulnerable to attack (Jacobson: col. 2, lines 7-15; col. 1, lines 55-64).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to create the system of checking signal transfer source and destination paths for loops before sending data as taught by Glitho while blocking packets based on destination and port as taught by Jacobson to decrease the number of devices in a network which can act as bottlenecks and can be vulnerable to attack (Jacobson: col. 2, lines 7-15; col. 1, lines 55-64).

Claim 13 is rejected under the same rationale given above. In the rejections set fourth, the examiner will address the additional limitations and point to the relevant teachings of Glitho and Jacobson et al.

Regarding claim 13, a method according to claim 10, further comprising the step of:

withholding transfer of said signaling messages to upstream pertinent destinations via the pertinent link set by sending transfer prohibiting messages by the signaling transfer point regarding a destination signaling point to a preceding signaling transfer point (Jacobson: col. 13, lines 20-25; lines 56-59), where upon said preceding signaling transfer point will at least perform one of a functions of rerouting traffic to the destination signaling point and stopping said traffic to the destination signaling point (Jacobson: col. 13, lines 20-25; lines 56-59; col. 3, lines 41-56).

Regarding claim 14,

The Giltho reference teaches a system of testing routing paths before sending data.

The Glitho reference does not explicitly state the breaking out of a loop.

The Harshavardhana reference teaches a method according to claim 10, further comprising the step of:

controlling an interruption of said loop by an operations maintenance and administration part (Harshavardhana: col. 2, lines 42- 51; col. 12, lines 60-63).

The Harshavardhana reference further teaches breaking out of loops prevents network inefficiencies like the tying up all the virtual circuits available and requiring retransmission, or traveling through too many switching nodes, or causing the network to be unreachable.

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to create the system of checking signal transfer source and destination paths for loops before sending data as taught by Glitho while providing a means to break out of loops as taught by Harshavardhana in order to increase network efficiency by avoiding tying up all the virtual circuits available and requiring retransmission, or traveling through too many switching nodes, or causing the network to be unreachable.

Claim 15 is rejected under the same rationale given above. In the rejections set fourth, the examiner will address the additional limitations and point to the relevant teachings of Glitho and Harshavardhana.

Regarding claim 15, a method according to claim 10, further comprising the step of:

controlling an interruption of said loop by a message transfer part (Harshavardhana: col. 2, lines 42- 51; col. 12, lines 7-12; lines 23-24).

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure:

U. S. Patent No. 5,390,175 by Hiller et al.

U. S. Patent No. 4,745,593 issued to Stewart.

U. S. Patent No. 5,101,451 issued to Ash et al.

U. S. Patent No. 5,036,318 issued to Bachhuber et al.

U. S. Patent No. 6,052,750 issued to Lea.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Benjamin R Bruckart whose telephone number is (703) 305-

0324. The examiner can normally be reached on 8:00-5:30 PM with every other Friday off.
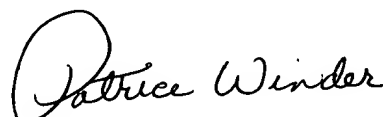
If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hosain Alam can be reached on (703) 308-6662. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 872-9306 for regular

communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-0324.

Benjamin R Bruckart
Examiner
Art Unit 2155

brb

November 20, 2000

PATRICE WINDER
PRIMARY EXAMINER